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09/894,642	06/27/2001	Kenneth H. Abbott	29443-8020US4	1958

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EXAMINER
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LIN, KELVIN Y

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/894,642	<b>Applicant(s)</b> ABBOTT ET AL.	
	<b>Examiner</b> Kelvin Lin	<b>Art Unit</b> 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 66-172 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 66-172 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/1/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **Detailed Action**

### **Response to Amendment**

#### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 66-104, 107-109, 111-172 are rejected under 35 U.S.C 102(e) as being anticipated by Evans et al., (US Patent 6327535). Claims 1-65 has been canceled as applicant requested.
2. Regarding claim 66, Evans teaches a method for a remotely executing user characterization system to provide information about a current state of a user of a thin client wearable computer, the user characterization system modeling the current state with multiple state attributes and including state server modules (SSMs) to supply values for the state attributes, state client modules (SCMs) to process values for the state attributes, and an intermediary module to facilitate exchange of state attribute values, the method comprising:
  - a. under control of each SSM, gathering information about the current state of the user, generating values for at least one of the state attributes based on the gathered information, and sending the generated values to the

intermediary module (Evans, col. 16, l.51-60).

- b. under control of each SCM, receiving values for at least one state attribute from the intermediary module and performing processing based on the received values (Evans, col. 16, l.3-16, col.17, l.5-9).
- c. under control of the intermediary module, facilitating exchange of values by,
  - receiving the sent values for the state attributes from the SSMS (Evans, col.18 , l.43-56, col.23, l.20-27) and
  - sending at least some of the received values to the SCMs (Evans, col. 23, l.50-56); and
  - interacting with the thin client wearable computer in order to provide information about the user or to receive information about the user so that the remote user characterization system can obtain and provide information about the current state of the user of the thin client wearable computer (Evans, col. 17, l.27-30)..
3. Regarding claim 67, Evans further discloses the method of claim 66 wherein the thin client wearable computer includes an output device, and wherein the interacting with the thin client wearable computer includes sending information for presentation to the user on the output device (Evans, col. 17, l. 6-10).
4. Regarding claim 68, Evans further discloses the method of claim 67 wherein the Information to be sent for presentation to the user is generated by the processing

of one of the SCMs, and wherein the sending of the information for presentation to the user on the output device is performed on behalf of that SCM (Evans, col. 17, l.33-34).

5. Regarding claim 69, Evans further discloses the method of claim 66 wherein the thin client wearable computer includes an input device, and wherein the interacting with the thin client wearable computer includes receiving information provided by the user via the input device (Evans, col. 23, l.20-25, l.50-55).
6. Regarding claim 70, Evans further discloses the method of claim 69 wherein the gathering of the information about the current state of the user by one of the SSMS includes obtaining the received information provided by the user via the input device (Evans, col. 17, l. 5-8)
7. Regarding claim 71, Evans further discloses the method of claim 66 wherein the user characterization system executes on a computer remote from the thin client wearable computer, wherein the thin client wearable computer lacks resources accessible to the remote computer, and wherein the interacting with the thin client wearable computer includes receiving a request to access at least one of the resources on behalf of the thin client wearable computer and accessing those resources in response (Evans, col. 18, l.59-67).
8. Regarding claim 72, Evans further discloses the method of claim 71 wherein the at least one resources include processing capabilities of the remote computer, wherein the accessing of those resources includes using the processing capabilities on behalf of the thin client wearable computer, and including sending

an indication of results to the thin client wearable computer (Evans, col. 17, l.60-67).

9. Regarding claim 73, Evans further discloses the method of claim 71 wherein the at least one resources are storage capabilities of the remote computer, and wherein the accessing of those resources includes sending information stored on the storage capabilities to the thin client wearable computer (Evans, col. 23, l.1-15).
10. Regarding claim 74, Evans further discloses the method of claim 71 wherein the at least one resources are storage capabilities of the remote computer, and wherein the accessing of those resources includes storing information received from the thin client wearable computer on the storage capabilities (Evans, col. 18, l.44-57).
11. Regarding claim 75, Evans further discloses the method of claim 71 wherein the remote computer has a sensor receiving information about the user of the thin client wearable computer, and wherein the gathering of the information about the current state of the user by at least one of the SSMs includes obtaining information from the sensor (Evans, col. 7, l.44-49).
12. Regarding claim 76, Evans further discloses the method of claim 71 wherein the remote computer has an output device that is perceivable by the user of the thin client wearable computer, and wherein the performing of the processing based on the received values by at least one of the SCMs includes presenting information to the user on the output device. (Evans, col. 17, l.41-42)

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13. Regarding claim 77, Evans further discloses the method of claim 66 wherein the gathering of the information about the current state of the user by at least one of the SSMs includes obtaining information from at least one sensor that is part of the thin client wearable computer (Evans, col. 25, l.43-45).
14. Regarding claim 78, Evans further discloses the method of claim 66 wherein the performing of the processing based on the received values by at least one of the SCMs includes supplying information to at least one output device that is part of the thin client wearable computer (Evans, col. 17, l.60-67).
15. Regarding claim 79, Evans further discloses the method of claim 66 wherein the user characterization system further includes an additional module executing on the thin client wearable computer, and wherein the interacting with the thin client wearable computer includes interacting the additional executing module (Evans, col. 17, l. 42-44).
16. Regarding claim 80, Evans further discloses the method of claim 66 wherein at least one of the SSMs executes on the thin client wearable computer and communicates with the intermediary module via wireless communication (Evans, col.8, l.1-3, col. 17, l.8-9).
17. Regarding claim 81, Evans further discloses the method of claim 66 wherein at least one of the SCMs executes on the thin client wearable computer and communicates with the intermediary module via wireless communication (Evans, col. 15, l.19-23)
18. Regarding claim 82, Evans further discloses the method of claim 66 wherein at

least some of the SSMs are available to supply values for additional state attributes of a current state other than for the user, and wherein the intermediary module additionally sends values for the additional state attributes to SCMs (Evans, col. 18, l.4-21)

19. Regarding claim 83, Evans further discloses a method in a computer for providing information about a current state related to a thin client, the current state represented with multiple state attributes, the method comprising :
  - a. Obtaining information that is related to the current state (Evans, col. 11, l. 30-34);
  - b. generating a value for each of at least one of the multiple state attributes of the represented current state based on the obtained information (Evans, col.11, l.34-67);
  - c. determining a module having an interest in at least one of the generated values (Evans, col.11, l.59-60); and
  - d. providing to the determined module the generated values in which the determined module can act in accordance with the current state of the thin client (Evans, col. 11, l.44-45).
20. Regarding claim 84, Evans further discloses the method of claim 83 wherein the thin client is a remote system including at least one of an input device and an output device (Evans, col.8, l. 2).
21. Regarding claim 85, Evans further discloses the method of claim 84 wherein the obtaining of the information that is related to the current state includes



communicating with the thin client via wireless communication in order to receive the information from the thin client (Evans, col. 8, l.2).

22. Regarding claim 86, Evans further discloses the method of claim 84 wherein the obtaining of the information that is related to the current state includes receiving information gathered by the input device of the thin client (Evans, col. 16, l.58-60).
23. Regarding claim 87, Evans further discloses the method of claim 84 wherein the obtaining of the information that is related to the current state includes receiving information gathered by a sensor of the thin client (Evans, col.26, l.15-20)
24. Regarding claim 88, Evans further discloses the method of claim 84 wherein the obtaining of the information that is related to the current state includes receiving information from a computing device distinct from the thin client that has access to information about the thin client (Evans, col. 18, l.45-50).
25. Regarding claim 89, Evans further discloses the method of claim 88 wherein the distinct computing device has access to information about the thin client based on sensing the information (Evans, col. 16, l.40-43).
26. Regarding claim 90, Evans further discloses the method of claim 88 wherein the distinct computing device has access to information about the thin client based on interactions with the thin client (Evans, col. 17, l.27-30).
27. Regarding claim 91, Evans further discloses the method of claim 84 wherein the obtaining of the information that is related to the current state includes interacting with a software module executing on the thin client (Evans, col. 17, l.40-43).

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28. Regarding claim 92, Evans further discloses the method of claim 84 wherein the determined module is executing on the thin client (Evans, col. 17, l.40-43).
29. Regarding claim 93, Evans further discloses the method of claim 92 wherein the providing of the generated values to the determined module causes information to be presented on the output device of the thin client (Evans, col. 17, l.60-65).
30. Regarding claim 94, Evans further discloses the method of claim 84 wherein the thin client system lacks resources accessible to the computer and including accessing at least one of the resource on behalf of the thin client. (Evans, col. 18, l.59-67).
31. Regarding claim 95, Evans further discloses the method of claim 94 wherein the at least one resources include processing capabilities of the computer and wherein the accessing of those resources includes using the processing capabilities on behalf of the thin client system (Evans, col. 19, l.3-5)
32. Regarding claim 96, Evans further discloses the method of claim 94 wherein the at least one resources are storage capabilities of the computer, and wherein the accessing of those resources includes storing information on or retrieve information from the storage capabilities (Evans, col.19, l.19-25)
33. Regarding claim 97, Evans further discloses the method of claim 83 wherein the generating of the state attribute values based on the obtained information includes analyzing the obtained information (Evans, col. 22, l.39-41)
34. Regarding claim 98, Evans further discloses the method of claim 97 wherein the obtained information includes information from at least one input device of the

thin client (Evans, col. 11, l.55).

35. Regarding claim 99, Evans further discloses the method of claim 97 wherein the obtained information includes information from at least one sensor device of the thin client (Evans, col. 25, l.28-30).
36. Regarding claim 100, Evans further discloses the method of claim 83 wherein the determining of the module having the interest in at least one of the generated values includes receiving a request from the determined module for those generated values. (Evans, col. 23, l. 48-50)
37. Regarding claim 101 , Evans further discloses the method of claim 83 wherein the determining of the module having the interest in at least one of the generated values includes receiving a request from the determined module for values of the state attributes to which those generated values correspond (Evans, col. 23, l. 25-31).
38. Regarding claim 102 , Evans further discloses the method of claim 83 wherein the determining of the module having the interest in at least one of the generated values includes identifying a previously supplied indication of interest from the determined module (Evans, col. 22, l. 15-17).
39. Regarding claim 103 , Evans further discloses the method of claim 83 wherein the determined module is a characterization module that facilitates exchange of values of the state attributes representing the current state related to the thin client (Abbot, col. 17, l.60-65)
40. Regarding claim 104 , Evans further discloses the method of claim 83 wherein

the determined module is a characterization module that models the current state related to the thin client (Evans, col. 19, l. 55-63).

41. Regarding claim 107, Evans further discloses the method of claim 83 wherein the thin client is a computing device, and wherein the at least one state attributes represent information about the thin client (Evans, col. 7, l.60-63, col.11, l.10).
42. Regarding claim 108, Evans further discloses the method of claim 83 wherein the at least one state attributes represent information about a physical environment related to the thin client (Evans, col. 11, l.5-13).
43. Regarding claim 109, Evans further discloses the method of claim 83 wherein the at least one state attributes represent information about a cyber-environment related to the thin client (Evans, col. 11, l.13-15).
44. Regarding claim 111, Evans further discloses the method of claim 83 wherein the obtained information is received from the thin client, and wherein security information must be provided to the thin client before the information is supplied from the thin client. (Evans, col. 23, l.55-56)
45. Regarding claim 112, Evans further discloses the method of claim 83 wherein the obtained information is received from the thin client, and wherein security information must be received from the thin client before the obtained information is accepted from the thin client (Evans, col. 24, l.1-11).
46. Regarding claim 113, Evans further discloses the method of claim 83 wherein the determined module is part of the thin client, and wherein security information must be provided before the provided generated values are accepted by the

thin client (Evans, col.24, l.57-63).

47. Regarding claim 114, Evans further discloses the method of claim 83 wherein the determined module is part of the thin client, and wherein security information must be received from the thin client before the generated values are provided to the thin client (Evans, fig.10, col.24, l.63-67).
48. Regarding claim 115, Evans further discloses the method of claim 83 wherein the thin client is a software module executing on a remote computing device (Evans, col. 26, l.1-3).
49. Regarding claim 116 has similar limitation as claim 83. Therefore, claim 116 is rejected under Evans for the same reason set forth in the rejection of claim 83.
50. Regarding claim 117, Evans further discloses the computer-readable medium of claim 116 wherein the computer-readable medium is a memory of the computing device (Evans, col.7, l.56-57).
51. Regarding claim 118 has similar limitation as claim 85. Therefore, claim 118 is rejected under Evans for the same reason set forth in the rejection of claim 85.
52. Regarding claim 119 has similar limitation as claim 83. Therefore, claim 119 is rejected under Evans for the same reason set forth in the rejection of claim 83.
53. Regarding claim 120, Evans further discloses the computing device of claim 119 wherein the input module, the attribute value generator module, and the attribute value provider module are executing in memory of the computing device (Evans, col.7, l.56-58).
54. Regarding claim 121 has similar limitation as claim 83. Therefore, claim 121 is

rejected under Evans for the same reason set forth in the rejection of claim 83.

55. Regarding claims 122-138 have similar limitation as claims 83-86, 91, 93-98, 100, 105-109. Therefore, claims 122-138 are rejected under Evans for the same reason set forth in the rejection of claims 83-86, 91, 93-98, 100, 105-109.

56. Regarding claim 139, Evans further discloses a computer-readable medium containing instructions that when executed cause a computing device to provide functionality to a remote thin client portable computer based on a related context that is modeled with multiple context attributes, by performing a method comprising :

- obtaining values of the context attributes from sources (Evans, col.11, l.34-67).
- supplying the obtained values to clients having tm interest in those values (Evans, col.11, l.44-60), and
- repeatedly, in response to requests received from the remote thin client (Evans, col.19, l.49-51).

57. Regarding claim 140, Evans further discloses a computer for providing functionality to a remote thin client portable computing device based on a context related to the remote thin client that is represented with multiple modeled attributed, comprising:

- An attribute value exchange module that is capable of obtaining values of the attributes from sources and of supplying the obtained

values to clients having an interest in those values (Evans, col. 19, l. 21-25), and

- A functionality provider module that is capable of receiving a request from the remote thin client and providing functionality as requested based on values of the attributes (Evans, col. 17, l. 26-29).

58. Regarding claim 141, Evans further discloses a method for a thin client computing device to assist a remote characterization module in modeling a current state of the thin client with multiple state attribute, the method comprising:

- Receiving an indication of information related to the current state (Evans, col. 17, l.48-52)
- Sending to the remote characterization module the indicated information related to the current state (Evans, col. 17, 52-54)
- Receiving from the remote characterization module an instruction that is based on one or more values of the modeled state attributes (Evans, col. 17, l.54-58); and
- Performing the instruction in accordance with the current state.(Evans, col. 17, l.59-63)

59. Regarding claims 142-149 have similar limitation as claims 85-92.

Therefore, claims 142-149 are rejected under Evans for the same reason set forth in the rejection of claims 85-92.

60. Regarding claims 150-160 have similar limitation as claims 83-84, 86-87, 93-96,

105, and 107. Therefore, claims 150-160 are rejected under Evans for the same reason set forth in the rejection of claims 83-84, 86-87, 93-96, 105, and 107.

61. Regarding claims 161-172 have similar limitation as claims 150-160, Therefore, claims 161-172 are rejected under Evans for the same reason set forth in the rejection of claims 150-160.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 105-106, and 110 are rejected under 35 U.S.C 103(a) as being unpatentable over Evans in view of Hoffberg et al., (US Patent No. 6418424).
2. Regarding claims 105-106, and 110, Evans fails to teach the mental state information and future state prediction of thin client user, and represents the information in the state attributes. However, Hoffberg clearly teaches the man-machine interface in order to meet user's needs. (Hoffberg, Abstract, col.27, l.27-30). These interfaces are ergonomically adapted to provide an optimized environment for human interaction with the device. Furthermore, a predicted input is presented for confirmation by the user, and the predictive mechanism is updated based on this feedback. The interface system predicts a desired action based on the user input, a past history of use, a context of use, and a set of predetermined or adaptive rules (Hoffberg, col.27, l.44-46). Regarding mental state, Hoffberg teaches the research has been performed relating to VCR usability, technology, implementation, programming steps, current technology, input devices, and human mental capacity (Hoffberg, col.34, l.18-23). The interface and intelligent control of the present invention are applicable to control applications in medicine or surgery. The interface may be

connected to various sensors, of the input device , such as ambient conditions (temperature, humidity, etc.), as well as data from the patient, such as , respirator, anesthesia, temperature, blood gas monitor, mental status, etc. as well as sensors and data sources ....( Hoffberg, col.98, l.35-54).

3. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine sensor in Evans wearable device with Hoffberg's medial medical device interfaces to manipulate with the user input attributes.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to application's disclosure.

- Evans et al., Patent No. (6747675) Mediating Conflicts in Computer User's context data
- Padmanabhan, Patent No. (67662456) Landmark-Based Location of Users
- Orbanes et al., Patent No. (6751620) Apparatus for Viewing Information In Virtual Space Using Multiple Templates
- Bakke et al., Patent No. (6704812) Transparent and Dynamic Management of Redundant Physical Paths to Peripheral Devices
- Profit, Jr. et al., Patent No. (6636831) System and Process for Voice-Controlled Information Retrieval
- NPL – D'Orazio et al., Mobile Robot Position Determination Using Visual Landmarks, IEEE Transactions on Industrial Electronic, vol. 41 Issues 6, Dec. 1994, pp. 654-662

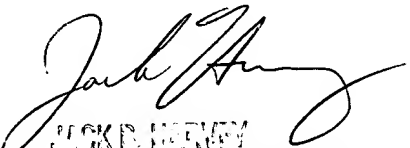
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Lin whose telephone number is 703-605-1726. The examiner can normally be reached on Flexible 4/9/5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kyl  
03/09/05



JACK HARVEY  
SUPERVISOR, PATENT EXAMINER